

PESTS THREATEN GARDEN SUCCESS

Specialists Advise Use of All Preventive Measures Possible as Best Plan.

HAVE SOIL DEEPLY PLOWED

Rotation of Crops Has Been Found by Many Farmers to Be Excellent Means of Controlling Disease and Harmful Insects.

Prepared by the United States Department of Agriculture.

From the time the seeds are planted until the crop is harvested a series of insect enemies and diseases may develop that, unless they are controlled, will destroy much of the value of the garden. Gardeners who wish to avoid these dangers should take steps to control them. The United States department of agriculture has worked out a great many special methods for destroying insects and diseases in the garden. They point out the fact, however, that preventive measures are best.

It is important to have the soil deeply plowed or spaded and made loose and light with plenty of manure or other material of compost and to keep the ground cultivated so that the surface will not become hard or woody. Use the best seed to be had and use it liberally to get a good stand. But thin out the plants, as recommended, and are to keep the garden free of weeds and insects. The best way to do this is to keep the garden free of weeds and insects.

Rotate Crops if Possible. Farmers have found that by rotating their crops they reduce the injury from plant diseases and insects and also increase the fertility of the soil. This principle applies to the home garden, where, if possible, it will be better to make a new plan each year, planting each vegetable where some other grew the year before—peas on the old tomato ground, beans and carrots after the corn, etc. The details of this rotation must vary in each case according to the climate, soil, and vegetables grown and the diseases and insects to be guarded against.

Avoid introducing insects and diseases on plants obtained for setting out. Practice clean cultivation. Employ fertilizers to stimulate plant growth. Work on the principle that a vigorous growing garden will produce a crop in spite of injurious insects and diseases.

Become familiar with the insects and diseases known to occur in your district on the crops and are growing. Equip yourself in advance with all necessary remedies and the means of applying them. Remember that the timely application of a remedy acts as an insurance against loss.

Watch constantly for the first appearance of a disease or insect. Inspect the garden at least every other day. Determine what is causing injury and apply the proper treatment.



A Garden Properly Prepared and Cared For Has Less to Fear From Insect Pests.

promptly. Use combination treatments as often as necessary, keeping in mind the influence of weather conditions as well as the life history of the insect or fungus causing the disease.

Neighborhood Should Co-operate. Use insecticides and fungicides in the proper dilution to accomplish the object without injuring the plants. Standard remedies are best. Test others experimentally before using them on a large scale.

Use the best sprayers. A thorough application is necessary for the best results. Adjust the sprayer so that all parts of the plant that are exposed to the air will be covered.

Work for co-operation in the neighborhood. One badly infected or infested garden may be the source of disease infection or insect infestation for several nearby gardens. Keep your own garden clean and it will be an object lesson for careless neighbors and will have a tendency to help clean up the neighborhood. This will make control easier and cheaper another year.

For garden insects there are several control methods that do not require the use of insecticides, but too much must not be expected from them. Of these hand picking is useful for large, comparatively inactive insects such as the potato beetle, cutworms and other caterpillars, and the squash bug. Another method is jarring or beating insects from low plants into large pans of water on which a thin scum of kero-

sene is floating. The water prevents the insects from escaping, and the kerosene, being on the surface, kills the insects with which it comes in contact. Collecting nests are valuable for some pests; for example, the tarnished plant bug. Brushing by different means is used to a considerable extent and consists in beating or brushing insects from the plants with pine boughs or similar brush. This method has proved of great value in combating the pest aphids. Covering with cloth is of use as a preventive for the striped cucumber beetle when the cucumbers are quite small, and for root maggots. Trapping by different methods with and without baits is useful for squash bugs and cutworms. Poisoned baits may be placed under such traps. Plowing, digging, and harrowing all can be done by hand and are of considerable service.

Spraying Methods. To be successful in the control of insects and diseases, spraying must be done thoroughly and thoroughly. Spray with Bordeaux mixture should be done before rains rather than after, provided the spray has time to dry on the leaves. Intervals between spraying should depend on the weather. If it is rainy or muggy, with fog or heavy dew, spray frequently to keep the foliage protected at all times. If dry, a longer time may be allowed.

The best time to spray is in the morning and the best work is done when the plant is thoroughly and evenly covered with the spray. Stop spraying before the foliage is dry.

The higher the pressure, the better the spray. Check all sprayers each time after using.

Use delicate foliage, spray after this gets under shade. Hot sunlight is dangerous with many sprays, such as Bordeaux mixture.

Get a copy—free by writing to the United States department of agriculture—of Farmers' Bulletin No. 24, "Control of Diseases and Insect Enemies of the Home Vegetable Garden." It discusses the whole subject in detail—the various garden insects and diseases, poisons and how to prepare and use them, spraying machinery, and the like.

DEPTH OF CORN CULTIVATION

Shallow Method Is Favored as Result of Many Comparative Experiments by Specialists.

Many comparative experiments of deep and shallow cultivation have been made, and on the whole the results are in favor of shallow cultivation. Specialists of the United States department of agriculture, the conclusion when deep cultivation is profitable are few. If excessive rains have packed the soil and kept it waterlogged, deep cultivation will help to dry and aerate it. Breaking the roots of the plants must be avoided so far as possible. If roots are broken the plants will rapidly produce other roots, but it will be at the expense of vitality and the food supply. After the plants have reached a height of 2 or 3 feet, the soil even in the middle of the rows should not be cultivated deeper than 4 inches, and usually a shallow cultivation will prove better. A loose soil mulch 2 or 3 inches in thickness should be maintained. It retains soil moisture and facilitates the penetration of rainfall.

"BETTER SIRE" LOCAL COLOR

Farmers Recognize Value of Improved Stock Even Though Living in Remote Sections.

That the value of improved live stock is recognized by farmers even though they are still far from reaching that goal on their farms is shown by correspondence reaching the United States department of agriculture from regions where the live stock industry is undeveloped. "This township," one farmer writes in pencil on a scrap of paper, "is interested in a better grade of cattle. There is a sawmill and a carriage shop and a blacksmith shop right by us, and I think these would be good places for your colored poster about better sires. If you will send me some I will post them up."

"We have several cows in our barn," he continues, "and will improve our cows with a pure-bred Holstein bull, which will soon be ready to head the herd."

LABORING FOR MORE

The more we work the more there is; the more there is the more to divide.

Only as all of us do our part will we contribute to this result.

Edwin T. Meredith, Secretary of Agriculture.

GENERAL FARM NOTES

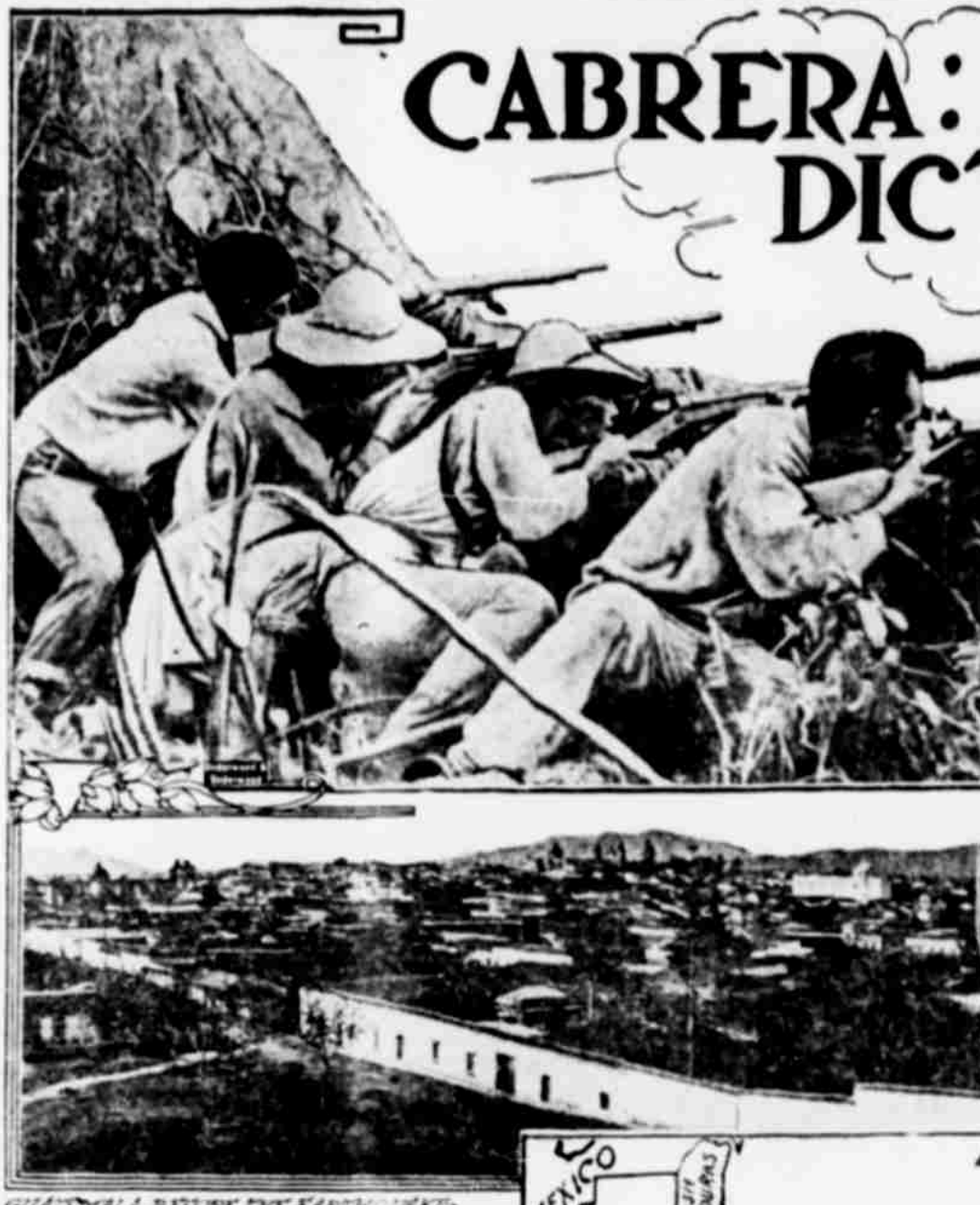
Humus is the chief source of supply of nitrogen.

The successful farmer is the business farmer.

Gardens and small fruit always seem to go together.

Growing vegetables for winter is a big part of the garden that is too often overlooked.

CABRERA: LAST of the DICTATORS



GUATEMALA EXPULSES THE DICTATOR.



MANUEL ESTRADA CABRERA, last of the Latin-American dictators, has fallen. Guatemala has a new "president"—Carlos Herrera, who led the "revolution" which ended with Cabrera's downfall.

Full details cannot be given. Not much news comes out of Guatemala—and a good deal of what does come is subject to doubt. But at this writing it is known—or at least suspected—that Cabrera capitulated in April to the revolutionary forces of Herrera, by setting his stronghold at La Palanca, southwest of Guatemala City, the capital.

Capitulation of Cabrera followed intermittent fighting which began when Cabrera was leading the forces of San Jose and Maricao with an entrenched position at La Palanca. All attempts by the Herrera forces to invade Guatemala City were blocked off. Long street fighting occurred in several districts. The Herrera forces surrounded San Jose and compelled its capitulation. They drove a wedge between Maricao and La Palanca and gradually surrounded the latter place.

The loss of life among combatants was not heavy considering the amount of ammunition used, but there were many casualties among the civilians during the bombardment of the capital and in the street fighting.

From San Salvador there are reports that men, women and children to the number of 800 were killed in the recent fighting in Guatemala City. Numerous adherents of Cabrera who remained faithful to their chief were killed in their own houses. Many Guatemaltecos who fled from the country are returning.

Cabrera's fate, it appears, is yet to be determined. At the time of his surrender his personal safety was guaranteed, according to one report. Guatemala refugees in San Salvador have asked President Herrera that Cabrera be tried in a "competent court." He said in reply that his government was in favor of trying Cabrera in the Guatemalan courts. It is further reported that Cabrera has been given the alternative by the national assembly of standing trial for his "crimes" or leaving the country forever with his family. Pending his decision Cabrera is a prisoner.

President Carlos Herrera is said to be the next richest Guatemalteco after Cabrera. The former dictator has amassed an enormous fortune, it is said, largely by confiscation of plantations and other properties in Guatemala. His principal foes are among the land-owning class, many of whom he has driven from their country in order to confiscate their holdings. Herrera has been jailed over and over again in order that he might be persuaded to give a "voluntary contribution" toward running the government. Cabrera, it is said, becoming bored finally at this constant round of arresting Herrera, remarked that the only way of getting all Herrera's money away from him was to kill him. However, he was afraid that foreign nations might object to this, because of the second richest man's great prominence, so he reluctantly allowed him to stay alive, and that is where Cabrera evidently made a mistake. Apparently Herrera must have become bored by his many arrests—or else he was afraid that Cabrera might change his mind.

Grim old Cabrera fought hard to turn the tables on his enemies, as he has so often done before in his sensational career. At one time his forces, hemming in the capital from every side, had begun bombarding it; and the dictator's re-entry into the city was imminent.

And Guatemala knows only too well what such a re-entry means, says T. R. Ybarra in the New York Times, writing just before Cabrera's surrender. There have been plenty of plots against Cabrera before, and each time plenty of men—women, too, in some cases—have been stood up against a wall and shot. His way, since he came to power in Guatemala in 1898, has been soaked in blood; the prisons have been packed with his political opponents; mysterious stories have been constantly told of how influential foes of his have disappeared forever, leaving no trace of what befell them.

For Cabrera takes no chances. Even his apologists admit that his methods are, to put it mildly, drastic. One of them wrote in the course of a favorable estimate of the Guatemalteco dictator:

"Doubtless he has overplayed the 'off with his head' game." If that is what an admirer puts it, think of what his enemies have to say!

He has projected himself into an era in which "progress" is staying in power from decade to decade are (possibly unobtainable) in which there is a life, that is, the most interesting Latin American is elections still more and other strange things prevalent in North America.

Yet, in the very midst of this era, Manuel Estrada Cabrera maintained himself, keeping his fingers at all attempts to oust him. He has the world's record for escaping assassination.

Only two long-distance autocrats of Latin America have ruled more than Cabrera's total of 22 years—Porfirio Diaz of Mexico and Dr. Francisco, the famous ruler of Paraguay. The other most famous dictators of Central and South America, despite the long terms of office, have not succeeded in equaling Cabrera's total of years as "president" of his native land, "elected" by the "votes" of his fellow countrymen.

Manuel Estrada Cabrera was born November 21, 1857, at the city of Quetzaltenango, in the interior of Guatemala. He studied law at the national capital and was appointed governor of the Department of Metztun and, in 1880, chief justice of his native city of Quetzaltenango. But these posts were not big enough for his ambitions. He managed to get himself appointed "Segundo Designado," or second vice president, of the republic. And then, when President Barrios—quite a long-distance ruler himself—was assassinated in 1900, Cabrera saw his chance. As second vice president, he was not the man who would automatically succeed Barrios—there was a first vice president in the way. But that didn't bother him. He is said to have walked into a meeting of the big men of the Barrios government, laid a revolver down on the table before them, and remarked:

"Gentlemen, I am president of Guatemala."

He was right. And he has been president of Guatemala ever since. The term "president," as has been hinted, is putting it far too mildly. A czar in the palmy days of czarism, a Roman emperor at the height of imperial Rome's power, a bloodthirsty despot of the far east, might well envy Manuel Estrada Cabrera, firmly seated on his Central American throne in this year of grace 1920, cheerfully acting in a way that would have made a tyrant of antiquity blush for fear that he was overdoing things.

His rule was absolute. His capacity for attending to details, for keeping an eye on everything that would insure his remaining sole arbiter of Guatemalteco destinies, was simply marvelous. The members of the Guatemalteco assembly, though it is externally a perfectly good legislative body, modeled on the parliaments of really democratic lands, are simply his creatures—or so his enemies say. His cabinet ministers are slaves. Everywhere Cabrera has spies. Nobody, native or foreign, enters or leaves Guatemala without having his every move reported to the despot. So terrible is this system of espionage, so acute the suspicion aroused by the dictator's methods, so well known his ruthlessness when once he has decided to swoop down on somebody, that his name is never mentioned in Guatemala except in whispers. Every man suspects his neighbor.

He has a large army, which he keeps efficient, since he realizes quite well that his power rests on bayonets. The private soldiers are recruited by force and get only a few cents a day. The officers, too, are poorly paid, but they, like the civilian officials of Cabrera, are not, according to common belief, deprived of means of improving their stipends.

Cabrera has escaped assassination in miraculous ways. The attempts to kill him have been far from bungling essays by amateurs; they show a skill in planning that should place them high among the classics of their kind. As a result of

these various attempts on his life, Cabrera, it is said, wears a bulletproof coat. Another story is to the effect that, fearing poison, he would take no food except that specially prepared for him by his mother, which was served to him in a hermetically closed steel canister which he opened himself at table.

There seems small room for doubt that Cabrera's regime was ruthless and his methods utterly despotic, but his defenders insist that, on the whole, his long reign has brought more good than evil to Guatemala. He has improved the country's finances, they say, carried out many important public works, reformed and liberalized the laws, fostered agriculture, introduced modern systems of sanitation. Above all, they declare, he has shown himself such a cautious genius in education that he has installed in Guatemala a really up-to-date school system based on American models.

During the great war the Guatemalteco dictator, according to report, was instrumental in helping in the bad a German plot for causing revolutionary outbreaks throughout the five Central American republics and extending them, if possible, to Panama and Colombia. The German minister at Guatemala, Herr Lehmann, was said to be the master mind behind this plot, and Herr Eckhardt, German minister at Mexico, was also named as one of its instigators. Cabrera, it was said, got wind of it, warned the United States government, and thus effectively blocked its progress.

Porfirio Diaz ruled over Mexico from 1876 to 1880 and from 1884 to 1911. Francia was absolute autocrat in Paraguay from 1814 to his death in 1840. His successor, Lopez I., kept himself in power for 22 years and then turned the government over to his son, Lopez II. Rosas, despot of the Argentine, ruled from 1829 to 1852. Blanco, the Venezuelan dictator, ruled for 18 years, from 1870.

Antonio Guzman Blanco was a little different from the rest of these dictators. He came into power in 1870 and his novel methods gave him eighteen years of ascendancy. Unlike Cabrera, Rosas, Francia, Diaz and the rest, Guzman Blanco was clever enough to keep the reins of power in his hands without sticking close to the job. Several times he went to Paris to have a good time, leaving "presidents" in his place who administered Venezuela in his absence without for a moment questioning his authority as the real boss of the show. But one of these substitutes, Dr. Rojas Paul, got tired of being president in name only and, in 1888, suddenly announced that he would no longer take orders from Guzman Blanco, then comfortably enjoying himself in Paris. The dictator threatened all sorts of terrible things as soon as he got back to his capital, but Rojas Paul had chosen a psychological moment. Guzman Blanco never dared to assert his authority again and, what is more, never dared return to his native land. Though surrounded in Paris by every luxury that wealth could buy, yet he died a broken-hearted exile, yearning to return to Venezuela, eagerly questioning every Venezuelan visitor for the latest news from home.

Juan Vicente Gomez of Venezuela has been "president" for 12 years.